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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/775,660	02/09/2004	Xiaohe Chen	200300677-1	1438

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INTELLECTUAL PROPERTY ADMINISTRATION
FORT COLLINS, CO 80527-2400

EXAMINER

NILAND, PATRICK DENNIS

ART UNIT	PAPER NUMBER
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1796

NOTIFICATION DATE	DELIVERY MODE
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04/17/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/775,660	Applicant(s) CHEN ET AL.	
	Examiner Patrick D. Niland	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 January 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/11/09</u> . | 6) <input type="checkbox"/> Other: _____ |

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/28/09 has been entered.

The amendment of 1/28/09 has been entered. Claims 1-25 are pending.

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-25 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

A. The originally filed specification does not provide basis for the new recitation of “only one resin, the only one resin being” of the newly amended claims. The effective exclusion of other resins is therefore new matter since it is not supported by the originally filed specification. See *Ex parte Grasselli*, 231 USPQ 393-395.

The cited portions of the instant specification are noted. However, the argued language supports the presence of additional resins, e.g. “one or more” and “include”. There is no language supporting the exclusion of additional resins particularly considering the open language of the claims, e.g. “comprising”. The effective exclusion remains seen as being new matter for

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the above reasons. The applicant's arguments do not address the negative limitation aspect of the instantly claimed amendment and the basis for this rejection found in Grasselli, cited above.

The applicant's arguments have been fully considered but are not persuasive for the reasons stated above. This rejection is maintained.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A. The instant claims recite ingredient amounts which do not add up to 100%. It is unclear what the remainder of the composition is required to be. The failure to recite the remaining required components is a failure to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.

3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1-10 and 13-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. Application Publication 2004/0035319 Yeh et al. in view of WO 03/097753 as interpreted by US Pat. Application Publication US 2004/0242726 Waki et al..

Yeh discloses an inkjet ink containing self dispersing pigment in the instantly claimed amount, the instantly claimed amount of 1,2-alkyldiol, and polyurethane. The amount of polyurethane is not disclosed. The polyurethane is not disclosed as being insoluble or soluble in water. The disclosure of polyurethane per se is taken as encompassing both since there are only two options for water solubility. Furthermore, it is noted that the instantly claimed limit for water solubility encompasses very low solubilities in water.

It would have been obvious to one of ordinary skill in the art at the time of the instantly claimed invention to use the instantly claimed amounts of water soluble polyurethane as the polyurethane of Yeh because the instantly claimed amounts would be required to give the low viscosities and surface tensions required of inkjet inks, Waki shows water soluble polyurethanes

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in the instantly claimed amounts to be useful as binders in ink jet inks at sections[0056]-[0057], [0058]-[0066], the amount being disclosed in section [0067] of Waki, which includes the polyurethanes of the instant claims 1, 3-5, and 21-24, water soluble polyurethanes clearly require no additional surfactant and thereby eliminate the well known harmful effects of such surfactants, such as decreased adhesion and discoloration, and the properties resulting from the water solubility and amounts of the polyurethanes of Waki would have been expected in the inks of Yeh. See Yeh, the abstract, sections [0002], [0016]-[0030], [0046], [0059], which falls within the scope of the instant claim 8, [0060]-[0061], which falls within the scope of the instant claim 9, [0063] of which “may” indicates that surfactants are not required which falls within the scope of the instant claim 17, [0066], [0068], and [0069], which falls within the scope of the instantly claimed 1,2-alkydiols and the amounts thereof of the instant claims 1, 2, 6-7, and 25, [0071], which discloses polyurethanes generally, [0073], which falls within the scope of the instant claims 13-14,

It would have been obvious to one of ordinary skill in the art at the time of the instantly claimed invention to use the instantly claimed pHs of the instant claims 15-16 to maintain the acid groups of the pigment of Yeh and the polyurethanes of Waki neutralized so as to maintain dispersion stability thereof in aqueous media and to avoid damaging high alkaline conditions simultaneously.

Yeh does not disclose the solvent of the instant claim 10.

It would have been obvious to one of ordinary skill in the art at the time of the instantly claimed invention to use the instantly claimed solvents of the instant claim 10 in Yeh because

Yeh discloses the use of cosolvents generally, Waki teaches the use of such solvents at paragraphs [0076]-[0077] and the benefits thereof would have been expected in the inks of Yeh.

The inkjet printing of the above discussed composition according to the methods of Yeh falls within the scope of the instant claims 18-19. The ink is necessarily in a cartridge of the instant claim 20.

9. Claims 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. Application Publication 2004/0035319 Yeh et al. in view of WO 03/097753 as interpreted by US Pat. Application Publication US 2004/0242726 Waki et al. as applied to claims 1-9 and 13-25 in paragraph 8 above and further in view of Iu et al. (U.S. 6,102,998).

The disclosure with respect to WO 03/097753 and Yeh in paragraph 8 above is incorporated here by reference.

Waki and Yeh do not disclose the solvents of the instant claims 11-12.

It would have been obvious to one of ordinary skill in the art at the time of the instantly claimed invention to use the instantly claimed solvents of the instant claims 10-12 in the above discussed inks of Yeh and Waki because Iu et al., which is drawn to ink jet ink, disclose the use of hydantoin solvents identical to that presently claimed in order to produce ink with enhanced image quality, waterfastness, and dry time (col.4, lines 41-65 and col.9, lines 20-24) and such co-solvents are encompassed by Yeh.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to 3 whose telephone number is 571-272-1121. The examiner can normally be reached on Monday to Friday from 10-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on 571-272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Patrick D Niland/
Primary Examiner
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